

Notice of Allowability

Application No.	Applicant(s)
09/759,294	SAKAI, KOUJI
Examiner	Art Unit
Lan Nguyen	3683

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. This communication is responsive to 3/15/04.
2. The allowed claim(s) is/are 1,3,6-10,13-15,31,33-37,39-44 and 46.
3. The drawings filed on 16 June 2003 are accepted by the Examiner.
4. Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some* c) None of the:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
1) hereto or 2) to Paper No./Mail Date _____.
 - (b) including changes required by the attached Examiner's Amendment / Comment or in the Office action of
Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. Notice of References Cited (PTO-892)
2. Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____.
4. Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. Notice of Informal Patent Application (PTO-152)
6. Interview Summary (PTO-413),
Paper No./Mail Date _____.
7. Examiner's Amendment/Comment
8. Examiner's Statement of Reasons for Allowance
9. Other _____.

XWJ

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Michael Giuliana on 5/06/04.

The application has been amended as follows:

Claim 1. A suspension system for a four wheeled vehicle, said suspension system comprising a first damper, a second damper, a third damper and a fourth damper, each of said dampers comprising a cylinder body and a piston arranged to reciprocate within said damper, each piston dividing an interior of each cylinder body into an upper chamber and a lower chamber, each piston also comprising a fluidic connecting passage that places said upper chamber and said lower chamber in fluid communication, said lower chamber of said first damper and said lower chamber of said second damper being fluidically interconnected with a pressure regulator, said pressure regulator comprising a first pressure regulating chamber and a second pressure regulating chamber, a first movable wall defining at least a portion of said first pressure regulating chamber and a second movable wall defining at least a portion of said second pressure regulating chamber, said lower chamber of said first damper being fluidically connected to said first pressure regulating chamber and said lower chamber

of said second damper being fluidically connected to said second pressure regulating chamber, a fluid communication passage extending between said first pressure regulating chamber and said second pressure regulating chamber, said pressure regulator further comprising a third pressure regulating chamber a portion of which is defined by the second moveable wall, said third pressure regulating chamber being fluidically connected with said third damper and said fourth damper through at least a first conduit and a flow regulator, said flow regulator containing a first flow regulating chamber and a second flow regulating chamber, and said first flow regulating chamber and said first conduit fluidically communicating through a first throttled passage.

Claim 2. (Cancelled)

Claim 3. The suspension system of Claim 1, wherein said first damper is a front right damper and said second damper is a front left damper.

Claim 4. (Cancelled)

Claim 5. (Cancelled)

Claim 6. The suspension system of Claim 1, wherein said flow regulator comprises a third flow regulating chamber and said first flow regulating chamber and said second flow regulating chamber are segregated from each other by a first movable partition and said first flow regulating chamber and said first conduit communicate through a second throttled passage extending through said movable partition.

Claim 7. The suspension system of Claim 6, wherein said first conduit, said flow regulator and a second conduit form a passageway between said third damper, said fourth damper and said pressure regulator.

Claim 8. The suspension system of Claim 1, wherein said flow regulator further comprises a flow regulator third pressure regulating chamber, said flow regulator third pressure regulating chamber being separated from said second flow regulating chamber by a second movable partition.

Claim 9. The suspension system of Claim 8, wherein said flow regulator further comprises a sub-cylinder, said sub-cylinder being in fluid communication with said flow regulator third pressure regulating chamber and said sub-cylinder comprising at least one movable partition.

Claim 10. The suspension system of Claim 9, further comprising a throttled passage connecting said sub-cylinder and said flow regulator third pressure regulating chamber.

Claim 11. (Cancelled)

Claim 12. (Cancelled)

Claim 13. The suspension system of Claim 1, wherein said first movable wall and said second movable wall are connected such that said first movable wall and said second movable wall move synchronously.

Claim 14. The suspension system of Claim 1, wherein said first movable wall contains a recess and said second movable wall is disposed within said recess.

Claim 15. The suspension system of Claim 1, wherein said first flow regulating chamber and said second flow regulating chamber are integrally formed in a single component.

Claim 16. (Cancelled)

Claim 17. (Cancelled)

Claim 18. (Cancelled)

Claim 19. (Cancelled)

Claim 20. (Cancelled)

Claim 21. (Cancelled)

Claim 22. (Cancelled)

Claim 23. (Cancelled)

Claim 24. (Cancelled)

Claim 25. (Cancelled)

Claim 26. (Cancelled)

Claim 27. (Cancelled)

Claim 28. (Cancelled)

Claim 29. (Cancelled)

Claim 30. (Cancelled)

Claim 31. A suspension system for a four wheeled vehicle, said suspension system comprising a first damper, a second damper, a third damper and a fourth damper, each of said dampers comprising a piston device arranged to act upon fluid within at least first and second fluid chambers, each of the first and second fluid chambers being in fluidic communication with each other, at least one of the first and second chambers of the first damper and at least one of the first and second chambers of the second damper being fluidically interconnected with a pressure regulator, said pressure regulator including a first pressure regulating chamber and a second pressure regulating chamber, a first movable wall defining at least a portion of said first pressure

regulating chamber and a second movable wall defining at least a portion of said second pressure regulating chamber, at least one of the first and second chambers of said first damper being fluidically connected to said first pressure regulating chamber and at least one of the first and second chambers of said second damper being fluidically connected to said second pressure regulating chamber, a fluid communication passage extending between said first pressure regulating chamber and said second pressure regulating chamber a portion of which is defined by the second moveable wall, said pressure regulator further comprising a third pressure regulating chamber, said third pressure regulating chamber being fluidically connected with said third damper and said fourth damper through at least a first conduit and a flow regulator, said flow regulator containing a first flow regulating chamber and a second flow regulating chamber, and said first flow regulating chamber and said first conduit fluidically communicating through a first throttled passage.

Claim 32. (Cancelled)

Claim 33. The suspension system of Claim 31, wherein said flow regulator comprises a third flow regulating chamber and said first flow regulating chamber and said second flow regulating chamber are segregated from each other by a first movable partition and said first flow regulating chamber and said first conduit communicate through a second throttled passage extending through said first movable partition and said flow regulator and said pressure regulator are connected by a second conduit.

Claim 34. The suspension system of Claim 33, wherein said first conduit, said flow regulator and said second conduit form a passageway between said third damper, said fourth damper and said pressure regulator.

Claim 35. The suspension system of Claim 31, wherein said flow regulator further comprises a flow regulator third pressure regulating chamber, said flow regulator third pressure regulating chamber being separated from said second flow regulating chamber by a second movable partition.

Claim 36. The suspension system of Claim 35, wherein said flow regulator further comprises a sub-cylinder, said sub-cylinder being in fluid communication with said flow regulator third pressure regulating chamber and said sub-cylinder comprising at least one movable partition.

Claim 37. The suspension system of Claim 36, further comprising a throttled passage connecting said sub-cylinder and said flow regulator third pressure regulating chamber.

Claim 38. (Cancelled)

Claim 39. The suspension system of Claim 31, wherein said first movable wall and said second movable wall are connected such that said first movable wall and said second movable wall move synchronously.

Claim 40. The suspension system of Claim 31, wherein said first movable wall contains a recess and said second movable wall is disposed within said recess.

Claim 41. A suspension system for a four wheeled vehicle, said suspension system comprising a first damper, a second damper, a third damper and a fourth damper, each

of said dampers comprising a cylinder body and a piston arranged to reciprocate within said damper, each piston dividing an interior of each cylinder body into an upper chamber and a lower chamber, each piston also comprising a connecting passage that places said upper chamber and said lower chamber in fluid communication, said lower chamber of said first damper and said lower chamber of said second damper being fluidically interconnected with a pressure regulator, said pressure regulator comprising a first pressure regulating chamber and a second pressure regulating chamber, a first movable wall defining at least a portion of said first pressure regulating chamber and a second movable wall defining at least a portion of said second pressure regulating chamber, said lower chamber of said first damper being fluidically connected to said first pressure regulating chamber and said lower chamber of said second damper being fluidically connected to said second pressure regulating chamber, a fluid communication passage extending between said first pressure regulating chamber and said second pressure regulating chamber, said pressure regulator further comprising a third pressure regulating chamber, said third pressure regulating chamber being hydraulically coupled with said third damper and said fourth damper through at least a first conduit and a flow regulator and wherein the first and second dampers are not fluidically connected to the third chamber, said flow regulator containing a first flow regulating chamber and a second flow regulating chamber, and said first flow regulating chamber and said first conduit fluidically communicating through a first throttled passage.

Claim 42. A suspension system for a four wheeled vehicle, said suspension system comprising a first damper, a second damper, a third damper and a fourth damper, each

of said dampers comprising a cylinder body and a piston arranged to reciprocate within said damper, each piston dividing an interior of each cylinder body into an upper chamber and a lower chamber, each piston also comprising a fluidic connecting passage that places said upper chamber and said lower chamber in fluid communication, said lower chamber of said first damper and said lower chamber of said second damper being fluidically interconnected with a pressure regulator, said pressure regulator comprising a first pressure regulating chamber and a second pressure regulating chamber, a first movable wall defining at least a portion of said first pressure regulating chamber and a second movable wall defining at least a portion of said second pressure regulating chamber, said lower chamber of said first damper being fluidically connected to said first pressure regulating chamber and said lower chamber of said second damper being fluidically connected to said second pressure regulating chamber, a fluid communication passage extending between said first pressure regulating chamber and said second pressure regulating chamber, said pressure regulator further comprising a third pressure regulating chamber, said third pressure regulating chamber being fluidically connected with said third damper and said fourth damper through at least a first conduit and a flow regulator, said flow regulator containing a first flow regulating chamber and a second flow regulating chamber, and said first flow regulating chamber and said first conduit fluidically communicating through a throttled passage.

Claim 43. A suspension system for a four wheeled vehicle said suspension system comprising a first damper, a second damper, a third damper and a fourth damper each

of said dampers comprising a cylinder body and a piston arranged to reciprocate within said damper, each piston dividing an interior of each cylinder body into an upper chamber and a lower chamber, each piston also comprising a connecting passage that places said upper chamber and said lower chamber in fluid communication, said lower chamber of said first damper and said lower chamber of said second damper being fluidically interconnected with a pressure regulator, said pressure regulator comprising a first pressure regulating chamber and a second pressure regulating chamber, a first movable wall defining at least a portion of said first pressure regulating chamber and a second movable wall defining at least a portion of said second pressure regulating chamber, said lower chamber of said first damper being fluidically connected to said first pressure regulating chamber and said lower chamber of said second damper being fluidically connected to said second pressure regulating chamber, a fluid communication passage extending between said first pressure regulating chamber and said second pressure regulating chamber, said pressure regulator further comprising a third pressure regulating chamber, said third pressure regulating chamber being connected with said third damper and said fourth damper through at least a first conduit and a flow regulator and wherein the first and second dampers are not fluidically connected to the third chamber, said flow regulator containing a first flow regulating chamber and a second flow regulating chamber, and said first flow regulating chamber and said first conduit fluidically communicating through a throttled passage wherein said third damper and said fourth damper are interrelated through a second pressure regulator and said

second pressure regulator defines a connection between said fluid damper and said fourth damper and said third pressure regulating chamber.

Claim 44. The suspension system of Claim 41, wherein said first damper is a front left damper and said second damper is a front right damper.

Claim 45. (Cancelled)

Claim 46. The suspension system of Claim 41, wherein said flow regulator further comprises a third flow regulating chamber and said first flow regulating chamber and said second flow regulating chamber are segregated from each other by a movable partition and said first flow regulating chamber and said first conduit communicate through a second throttled passage extending through said movable partition.

2. The following is an examiner's statement of reasons for allowance: it is found that the feature of a third pressure regulating chamber being fluidically connected with third and fourth dampers, defines over the cited prior art of Sakai.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

3. For the record:

- Claims 3, 6-10, 13-15, 34, 36, 37, 39, 44 and 46 have been rejoined for pertaining to the elected embodiment of figures 5-7 and 12.
- Claims 2, 4, 5, 32 and 45 are cancelled for pertaining to non-elected embodiments.

- Claims 11, 12, 16 and 38 are cancelled because of being redundant.
 - Claims 17-22 are cancelled for not overcoming the cited prior art of Tschanz.
4. Claims 1, 3, 6-10, 13-15, 31, 33-37, 39-44 and 46 are allowed.
5. The Examiner would like to thank the Applicant's Representative, Michael Giuliana, for his cooperation in placing this case in condition for allowance.
6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lan Nguyen whose telephone number is 703-308-8347. The examiner can normally be reached on M-F, 8 to 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack Lavinder can be reached on 703-308-3421. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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5/21/04